

REMARKS

The specification stands objected to and the claim stands rejected under 35 U.S.C. § 112, first and second paragraphs, for asserted lack of a full, clear, and complete botanical description of the plant. The accompanying substitute specification which addresses each of items A-E in the Office Action is now believed to comply with the statutory requirements.

The claim stands rejected under 35 U.S.C. § 102(b) for anticipation by European Plant Breeder's Rights Application No. 98/0251 in view of a sale of a plant in Europe in July 1998. Similar rejections are imposed based on Polish Plant Breeder's Rights Application No. OO0054, Czech Republic Plant Breeder's Rights Application No. 1084, and South Africa Plant Breeder's Rights Application No. PT 2603, each in combination with the sale of a plant in Europe in July 1998. Applicant traverses these rejections for the following reasons.

I. Basis for § 102(b) rejection

The Office Action of April 5, 2002 recognizes that a publication which is relied upon as prior art under 35 U.S.C. § 102(b) must be enabling. Moreover, it is admitted at page 7 of the Office Action that the text of the cited Plant Breeder's Rights (PBR) applications "standing alone would not enable one skilled in the art to practice the claimed invention". To account for the deficient teachings of the cited PBR applications, namely, their lack of an enabling disclosure, the rejections are supplemented by prior public availability of the claimed plant as an "additional reference". In so doing, the Office Action asserts at page 7 that "when the claimed subject matter is disclosed identically by a reference, an additional reference may be relied on to show that the primary reference has an 'enabled disclosure'", citing In re Samour, 571 F.2d 559, 197 USPQ1 (CCPA 1978) and In re

Donohue, 766 F.2d 531, 226 USPQ 619 (Fed. Cir. 1985). This asserted tenet of law is incorrect and not supported by the case law cited in the Office Action.

II. Combining the PBR application EU 98/1669 with public availability of a plant under 35 U.S.C. § 102(b) is improper

Contrary to the assertion in the Office Action, the cited PBR applications do not identically disclose the claimed subject matter.

The European PBR Application No. 98/0251 is exemplary of the amount of information on a plant provided in a Plant Breeder's Rights application. The PBR application 98/0251 is discussed below as being representative of the other three cited PBR applications.

Every material element of the claimed subject matter does **not** exist in the primary reference of EU 98/0251.

To particularly point out how scant the information is in the EU 98/0251 application, Attachment A contains the specification of the present application, rewritten to contain only the information which was present in EU 98/0251. The type of information which is included in a PBR application is quite unspecific and does not include the specific sizes, shapes, colors, and arrangement of various components of the plants. The only specific information which is included in EU 98/0251 is petal color and even that information is not completely consistent with the color designations set forth in the present application. A comparison between the disclosure in the PBR application and the present specification yields few similarities.

Hence, EU 98/0251 could not have led one skilled in the art to definitively locate a plant meeting every material element of the claimed subject matter. At most, one seeking to find a plant named 'Pennea' might locate a similar variety but not necessarily the same variety. A plant named 'Pennea' was sold in Europe in 1998. However, there is no evidence that the claimed variety (a plant having all the elements of the present specification)

was actually sold one year before the filing date of the present application. The plant sold in Europe may not necessarily have been the claimed variety.

In addition, the documents of record do not even indicate the parentage of the claimed variety. Hence, the starting materials to produce the plant of the PBR application are unknown. Even if one were capable of somehow overcoming the current genetic technology barriers to reproduce a geranium that looked similar to 'Pennea', there are numerous plants which could meet that description. The chance of actually creating the claimed variety having all the characteristics specified in the present application is essentially nil.

The claim in the present application is to "a new and distinct variety of geranium plant substantially as shown and described". The claim refers not only to the photograph of the plant but also to the complete description of the plant set forth in 5 pages of the description. Each of those components of the description and of the photograph constitute "the material elements of the claimed invention". Those material elements of the claimed invention are not set forth in the cited primary reference, the PBR application.

The Office Action asserts, at page 10, that the present application is merely a "more detailed description of the claimed cultivar" than the PBR application which does not confer novelty. The issue is not what constitutes a better description of the claimed invention, but that the present application is **the** definitive description thereof.

In the absence of disclosure of every material element of the claimed subject matter, the PBR application (which only questionably disclosed the existence of the claimed variety) fails to meet the anticipation requirements of 35 U.S.C. § 102(b). The sale of the claimed variety outside the United States more than one year prior to the filing date of the United States patent application can be relied upon **only** to show that the claimed subject matter was in the possession of the public and not to supplement the failure of the PBR application to disclose every material element of the claimed invention.

The sale of a variety outside the United States indicates that it may have been in the possession of the public one year prior to the patent application filing date, but that sale outside the United States is not a statutory bar. Combining the sale of a variety outside the United States with the scant disclosure in the cited PBR application constitutes improper use of prior art under 35 U.S.C. § 102(b) to build an “anticipation” rejection. It is well-settled that teachings of multiple references may not be combined to build an anticipation rejection. Studiengesellschaft Kohle, M.B.H. v. Dart Industries, Inc., 726 F.2d 724, 727, 220 USPQ 841, 842 (Fed. Cir. 1984).

The following comments set forth the proper standards for using multiple references in a § 102(b) rejection, namely, that an additional reference may be used to show that anticipatory prior art is in the public domain.

III. Use of multiple references to make a rejection under 35 U.S.C. § 102(b)

It is well-established that a printed publication which discloses “every material element of the claimed subject matter” constitutes a bar under 35 U.S.C. § 102(b) if more than one year prior to an application’s filing date, it placed the claimed subject matter “in possession of the public”. In re Samour, 571 F.2d at 562, 197 USPQ at 3. See also, In re Donohue, 766 F.2d at 533, 226 USPQ at 621 (“It is well settled that prior art under 35 U.S.C. § 102(b) must sufficiently describe the claimed invention to have placed the public in possession of it”.)

There is some flexibility in the rule that only one reference may be used in an anticipation rejection. An additional reference may be used to prove that the primary reference discloses subject matter which is in the public’s possession. MPEP §2131.01. Pursuant to this exception, a secondary reference may be included in an anticipation rejection only when the primary reference in and of itself is an enabling disclosure. An additional reference may be used to show what the primary reference contains -- and not to supplement

what the primary reference lacks. In both of In re Samour and In re Donohue (each relating to patent applications on chemical inventions), an additional reference was relied upon to show that the subject matter of a primary reference was available to the public. Neither case stands for the proposition that an additional reference may be used to supplement a non-enabling disclosure of a primary reference.

The claim at issue in In re Samour was directed to a specific chemical compound with the structure appearing in the claim. A first prior art reference disclosed the structural formula set forth in the claim, but the reference did not disclose a method for its preparation. Hence, the applicant argued that the first reference was non-enabling. In response, the Examiner cited an additional reference which disclosed a method for preparing similar types of compounds. On appeal from a final rejection, the Patent and Trademark Office Board of Appeals agreed that the additional reference provided a legally sufficient teaching of how to make the compound disclosed in the first reference. The court agreed that the mere recitation of the chemical formula of the claimed composition in a prior art reference would not have been sufficient to place the compound in the public's possession. Yet, the court was willing to consider relying on additional references:

solely as evidence that, more than one year prior to appellant's filing date, a method of preparing the claimed subject matter (DMMP) would have been known by, or would have been obvious to, one of ordinary skill in the art. Therefore, the key issue before us is whether the PTO, in making a rejection under 35 U.S.C. § 102(b) on a single prior art reference that discloses every material element of the claimed subject matter, can properly rely on additional references for such purpose.

Id. at 562, 197 USPQ at 4 (emphasis added).

The court maintained the rejection of the claim for the chemical compound based on the combined teachings of the printed publication disclosing the compound and a reference which disclosed a method for making similar compounds explaining that the

additional reference cited in the § 102(b) rejection was “not relied on for a suggestion or incentive to combine teachings to meet the claimed limitations” (as in a rejection under 35 U.S.C. § 103), but, rather, to show that the claimed subject matter, **every material element of which is disclosed in the primary reference**, was in the possession of the public. Id. at 563, 197 USPQ at 4.

The Samour court did not import any disclosure from the secondary reference into the disclosure of the primary reference which taught every material element of the claimed compound. Every material element of the claim was the structural formula of the claimed compound. The primary reference disclosed that same structural formula. The secondary reference was only used to demonstrate that the claimed subject matter, **which was fully disclosed in a printed publication**, was available to the public.

A similar reasoning and result was found in In re Donohue where a claim also directed to a set of chemical compounds was rejected for anticipation by a primary reference that did not disclose methods of preparing the claimed compounds. Additional references relied upon by the United States Patent and Trademark Office taught how such compounds could be produced. The legal basis for upholding the rejection was outlined as follows:

It is well settled that prior art under 35 U.S.C. § 102(b) must sufficiently describe the claimed invention to have placed the public in possession of it. *In re Sasse*, 629 F.2d 675, 681, 207 USPQ 107, 111 (CCPA 1980); *In re Samour*, 571 F.2d at 562, 197 USPQ at 4; *see also Reading & Bates Construction Co. v. Baker Energy Resources Corp.*, 748 F.2d 64, 651-52, 223 USPQ 1168, 1173 (Fed. Cir. 1984). Such possession is effected if one of ordinary skill in the art could have combined the publication’s description of the invention with his own knowledge to make the claimed invention. *See In re LeGrice*, 301 F.2d at 939, 133 USPQ at 373-74. Accordingly, even if the claimed invention is disclosed in a printed publication, that disclosure will not suffice as prior art if it was not enabling. *In re Borst*, 345 F.2d 851, 855, 45 USPQ 554, 557 (CCPA 1965), *cert. denied*, 382 U.S. 973, 148 USPQ 771 (1966).

Id. at 533, 226 USPQ at 621 (footnote deleted).

The court specifically followed the rule of Samour to determine that the claimed subject matter was in the public's possession by looking to additional references.

The additional references utilized in this case (viz., Lincoln and Wagner) are not relief [sic] upon for suggestion or motivation to combine teachings to meet the claim limitations, as in rejections under 35 U.S.C. § 103. *In re Samour*, 571 F.2d at 563, 197 USPQ at 4-5. Such reliance would be pointless because Nomura [the primary reference] discloses every element claimed. The purpose of citing Lincoln and Wagner is, instead, to show that the claimed subject matter, as disclose [sic] in Nomura, was in the public's possession.

Id.

Both In re Samour and In re Donohue involved claims to a class of chemical compounds that was fully disclosed in a prior art reference. The secondary references in both cases were not employed to supplement any need for additional disclosure not present in the primary reference so that one skilled in the art could comprehend the scope of that referenced disclosure but only to show that the claimed chemical compounds were within the public domain. In other words, on their faces, the primary references were “enabling” because they taught every material element of the claimed subject matter. The only reliance on a secondary reference was to show that the claimed subject matter was in the public possession one year prior to the filing date of the patent applications for the chemical compounds.

This line of case law was recently followed in Bristol-Myers Squibb Co. v. Ben Venue Laboratories, Inc. et al., 246 F.3d 1368, 58 USPQ2d 1508 (Fed. Cir. 2001). Ben Venue and its codefendants alleged invalidity of a patent obtained by Bristol-Myers for a method of treating a cancer patient having steps of (i) premedicating the patient with a first drug and (ii) administering a second drug. The defendants argued that Bristol's claim was anticipated by a prior art reference which not only described treating patients with the second drug (i.e., the second step) but also suggested that “[f]urther studies are needed to see if

pretreatment regimens [i.e., the first step], ... will permit the safe administration of this compound”. Id. at 1372, 58 USPQ2d at 1515-1516. At issue was whether the prior art reference which mentioned a pretreatment regimen was “enabling to one of skill in the art” one year before the filing date of Bristol’s patent application based on additional references and teachings to pretreat cancer patients. Following both Samour and Donohue, the court noted that enablement of an anticipatory reference may be demonstrated by another reference and restated the requirement of “a showing of each limitation of a claim in a single reference” for anticipation. Id. The court concluded that it was proper to look at other references to establish that the pretreatment regimen mentioned in the primary reference was in the public domain one year prior to Bristol’s filing date. As was true for the claims at issue in Donohue and Samour, every material element of the claim in Bristol-Myers was present in the primary reference, namely, (i) premedicating a patient with a first drug and (ii) administering to the patient a second drug. The primary reference contained both of those limitations and additional references were only relied upon to show that premedicating a patient was within the public domain one year prior to the filing date of the patent application. No subject matter from the secondary reference was used to supplement the disclosure of the primary reference.

Hence, there are two requirements for using an additional reference to “enable” a primary reference in forming an anticipation rejection.

1. The primary reference must contain “every material element of the claimed invention”; and
2. The additional reference is relied upon only to demonstrate that the claimed subject matter was in the possession of the public one year prior to the filing date of the patent application.

IV. Anticipation of plant subject matter by multiple references

The cases of In re LeGrice, 301 F.2d 929, 133 USPQ 365 (CCPA 1962) and Ex parte Thomson, 24 USPQ2d 1618 (Bd. Pat. App. & Inter. 1992) are consistent with Samour, Donohue, and Bristol-Myers.

A. In re LeGrice

At issue in LeGrice was whether a published catalog listing a variety of rose plants along with some botanical data and a color picture thereof barred patenting of that rose variety as a plant patent. It was established on the record that the color picture in the prior art catalog publication established identity at least in appearance between the rose plant illustrated in the catalog and the claimed variety.

In determining whether the catalog was an “enabling” disclosure, i.e., sufficient to give the public possession of the rose plant, the court pointed out the following unique characteristics of plants as compared to manufactured articles. Plants protected by United States plant patents are asexually reproduced wherein the plant is propagated by divisions or cuttings to form clones, each of which is identical to its parent plant and to all other cuttings or clones taken from the parent plant. Id. at 937, 133 USPQ at 372. Even when the parentage of the claimed variety is set forth in a publication, no two seeds produced by cross-pollinating the parent plants can be expected to produce identical plants. Id. at 938, 133 USPQ at 373. The principles of heredity and plant genetics introduce innumerable possible combinations of genetic material which may result in equally innumerable distinct plants. Id.

The impossibility of producing a particular variety from a description thereof in a printed publication was a critical factor for the court in LeGrice. The court emphasized that the description of the invention in the printed publication must be an “enabling” description and that the proper test of an enabling description in a publication as a bar to a patent under § 102(b) is “whether one skilled in the art to which the invention pertains could

take the description of the invention in the printed publication and combine it with his own knowledge of the particular art and from this combination be put in possession of the invention on which a patent is sought". Id. at 939, 133 USPQ at 374.

In 1962, the LeGrice court recognized that the knowledge of plant genetics made it impossible to reproduce a particular plant having specific botanical characteristics based solely on a description of the plant or even when the parent plants were known. Despite the many advances in biotechnology over nearly 40 years, that limitation on reproducing plants holds true.

Accompanying this response as Attachment B is a Declaration by Dr. Richard Craig, an expert in the field of horticulture. The details of Dr. Craig's Declaration are not repeated herein, but should be appreciated for the explanation of the differences between asexually reproduced plants and sexually reproduced plants and the impossibility of generating a desired plant from a description thereof in a printed publication. As detailed in Dr. Craig's Declaration, there is no possibility of recreating a particular variety via experimentation because of the endless possibilities when the genes of parent plants are combined to produce daughter plants.

Thus, when one makes a cross-fertilization of heterozygous parents, one cannot predict the specific combination of traits in the progeny. When a large number of genes have different allelic combinations in the parents, the possible genotypic combinations in the hybrid progeny approach infinity.

Craig Declaration at page 3.

Dr. Craig states that a description of a plant (such as the description in a PBR) cannot be used to recreate the plant.

Starting only from a photograph or a written description of a particular cultivar, a plant breeder cannot reproduce the cultivar. No person can independently create through fertilization and hybridization the exact genetic replica of another plant.

Craig Declaration at page 4.

Thus, it is still true today that a description of a particular variety cannot enable one skilled in the art to recreate that variety.

In the decision below LeGrice, the Board of Appeals had reasoned that since a description of a plant in a plant patent application is deemed sufficiently enabling to grant a patent, then a publication on a plant should be considered equally enabling to bar patenting. The LeGrice court pointed to two errors in that reasoning. First, § 162 specifically permits varying degrees of description in a plant patent while § 102(b) makes no such allowance regarding the sufficiency of the description in an anticipatory printed publication. Therefore, a plant patent application may be less specific than an anticipatory publication. Second, the predecessor to the current § 163 did not grant a right to exclude others from “making” a claimed plant but only to exclude others from asexually reproducing or selling the claimed plant. The statute reflects the reality that “there is no possibility of producing the plant *from a disclosure* as 35 U.S.C. § 112 contemplates” because one cannot make a plant, only asexually reproduce or sell it. Id. at 944, 133 USPQ at 378.

There is no discussion in LeGrice about enablement of the printed publication on the claimed rose plant based on any other source, such as public availability of the plant¹. LeGrice only holds that a printed publication cannot be considered to be an enabling disclosure of a claimed plant under Title 35 based on knowledge possessed by plant breeders. While the LeGrice court declined to characterize all plant publications as being irrelevant as printed publications under § 102(b) (allowing for developments in biotechnology), it noted that “the facts of each case [must] be carefully considered to determine whether the description of the printed publication in question *does in fact* place the invention in the

possession of the public”. Id. at 939, 133 USPQ at 374 (emphasis in original). The facts of LeGrice, non-enablement of a plant patent claim by a description of the plant, parallel the present case. In both LeGrice and here, the material elements of a plant patent claim are not set forth in the printed publication and there is no need to consult additional references, nor is it appropriate to do so.

B. Ex parte Thomson

Naturally, a different result was found in Ex parte Thomson when the claims in a **utility** application for a cotton cultivar were rejected over a prior art reference which **identically** disclosed the specification of the application for the cotton cultivar. The rejected claims were as follows:

1. A cotton cultivar having the designation Siokra (ATTC 40405).
2. Seeds of the cotton cultivar according to Claim 1.

Id.

The Board of Patent Appeals and Interferences found that several prior art references disclosed the exact same cotton cultivar and seeds of that cultivar. Importantly, the Board found that “for enablement purposes, the descriptive words of the specification herein **do not differ substantially from** the disclosures of the cited publications”. Id. at 1621 (emphasis added). Moreover, the specification of the utility application was enabled by the availability of the claimed seeds deposited in the American Type Culture Collection (ATTC). The cited publications were also enabled by the public availability of the same cotton seeds. Id. As such, the public accessibility of the claimed seeds would have enabled the skilled artisan to make and use the claimed cotton cultivar and its seeds. Id. The Board

¹ The Office Action notes that Cooper, Biotechnology and the Law, (West Group 2000) at 8-16 asserts that the LeGrice holding means “[i]n essence, then, a plant patent applicant cannot lose his rights through public description of the new variety so long as he does not make the stock available for propagation by the public”. No case law supports the caveat of not making the stock public, and it is opposite to the established holdings of the Federal Circuit and its predecessor court.

upheld the rejection of the claims under 35 U.S.C. § 102(b) based on (1) prior art references that **identically** disclosed the claimed cultivar and (2) the opportunity for a skilled cotton grower to read the prior art references, purchase the commercially available seeds, and employ conventional techniques to obtain the claimed invention, namely, the plants and its seeds.

The Board distinguished LeGrice for three reasons.

First, actually following LeGrice, it recognized that each case is decided upon its own facts in determining whether the description in a printed publication is “adequate to put the public in possession of the invention and bar patenting of a plant” under § 102(b). Id. at 1620. The Board believed that sufficient advancements in plant eugenics warranted not following LeGrice’s rule on non-enablement of publications and expressed no doubt that the skilled artisan would be able to grow the claimed cultivar. As detailed in Dr. Craig’s Declaration, the Board was clearly mistaken. The “someday” of securing a plant invention by a description in a printed publication has not yet arrived. Regardless of the Board’s erroneous comments on genetic technology, it remains axiomatic that each case must be decided on its own facts. Id.

Second, the Board found it significant that for enablement purposes **the descriptive words of the specification did not differ substantially from the disclosures of the cited publications.** Id. In other words, all the material elements of the claim were disclosed in the primary reference. The specification was enabled by the deposit of the claimed seeds and the cited publications were also enabled by the deposit of the same seeds. The court noted that LeGrice did not consider the public availability of the rose plant at issue therein, and that the LeGrice holding was based on the specific printed publications. Public availability of the plant was one factor in the Thomson decision because the claim itself was enabled by public availability of the plant. However, a “significant” aspect of the 102(b)

rejection was that the descriptive words of the prior art references did “not differ substantially” from the disclosures of the specification. Id.

Finally, the Board pointed out that whereas LeGrice was directed to patentability of plant patents, the patent at issue in Thomson was a utility patent which is afforded a broader scope of protection. Id. at note 1. Hence, the standard for anticipation by a printed publication should be more broadly applied to the claims in a utility application than to a claim in a plant patent application. Id.

The Office Action in the present case incorrectly asserts that the same question was asked in Thomson and LeGrice of “what is required to enable” a printed publication describing a plant. The questions in those two cases must be different because Thomson involved a utility patent claim and LeGrice involved a plant patent claim -- and those are two different forms of statutory subject matter having different standards for enablement and infringement as discussed above.

It should be understood that the Thomson decision is consistent with Donohue and Samour in meeting the requirements for using additional references in a § 102(b) rejection.

First, every material element of the Thomson claim was set forth in the primary reference. (“We find it significant for enablement purposes the descriptive words of the specification do not differ substantially from the disclosure of the cited publications”). Thomson, 24 USPQ2d at 1621.

Second, the additional “reference” (the publicly available seeds) was cited solely to show that the plant described fully in the primary reference was in the public domain. As was true for Samour and Donohue, the Thomson rejection did not combine teachings of two references. The added reference only demonstrated that the plant material **fully** described in the primary reference was in the public domain.

V. Enablement of a PBR application as a prior art reference is inconsistent with current plant patent application examination practice

The standards for compliance with 37 C.F.R. § 1.163 and 35 U.S.C. § 112, first paragraph in plant patent applications have become increasingly strict. Despite the variance in the degree of description in a plant permitted by 35 U.S.C. § 162, recent experience shows that many disclosures of plant patent applications are objected and the claims therein are rejected for asserted lack of “a full, clear, and complete botanical description of the plant and the characteristics which define same per se and which distinguish the plant from related known cultivars and antecedents”. See, e.g., pages 4-10 of the July 27, 2001 Office Action in the present application.

The United States Patent and Trademark Office certainly does not consider the information in a PBR application sufficient under § 162, nor does it consider significantly more complete disclosures (such as the original specification filed herein) as being enabling under the statute.

To now assert that a PBR application somehow is enabling prior art is inconsistent with the current examination practice of requiring increasingly detailed botanical information in plant patent applications. The United States Patent and Trademark Office cannot have it both ways of asserting a PBR application as enabling prior art **and** rejecting reasonably detailed plant patent applications for lack of enablement.

Future plant patent applicants can comply with the stricter interpretation of § 162 when submitting their applications, but they should not be faced with a prior art rejection based on a non-enabling PBR application.

VI. Conclusions

Withdrawal of the rejection of claim 1 is respectfully requested for the reasons detailed above and summarized as follows:

- A. The PBR applications do not disclose every material element of claim 1; they are not "enabling" references.
- B. The PBR applications cannot be read to describe a particular plant variety.
- C. The sale of a geranium plant in Europe in 1998 named 'Pennea' was not necessarily the claimed variety having all the characteristics listed on 4 pages of the present specification.
- D. The PBR applications' scant disclosures may not be supplemented by an additional reference to supplement what the PBRs fail to disclose; an additional reference can only be used to show that the plant disclosed in the PBR applications is in the public domain.

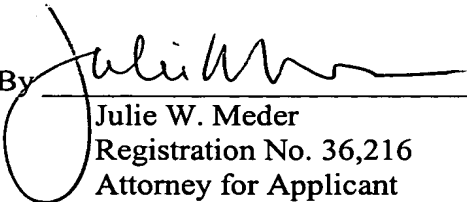
The current interpretation of statutory law by the United States Patent and Trademark Office is opposite to the longstanding relationship between Plant Breeder's Rights in foreign countries and United States plant patents and is counter to Federal Circuit case law dating back nearly 40 years.

Applicant respectfully requests that this new position by the Plant Patent Group be rescinded and that claim 1 be allowed.

Respectfully submitted,

WEBB ZIESENHEIM LOGSDON
ORKIN & HANSON, P.C.

By



Julie W. Meder
Registration No. 36,216
Attorney for Applicant
436 Seventh Avenue
700 Koppers Building
Pittsburgh, PA 15219-1818
Telephone: (412) 471-8815
Facsimile: (412) 471-4094



PBR Application E18/0251 rewritten in form of a U.S. Plant Patent application

VARIETY OF GERANIUM NAMED 'PENNEA'

Breeder reference number: P-4057

Classification: *Pelargonium x peltatum* (ivy geranium).

Comparison to the cultivar 'Guibambi' (PEL 715):

1. 'Guibambi' pedicel color in middle third is light red, while middle third of pedicel of 'Pennea' is colored green.
2. 'Guibambi' has inner petal adnation while 'Pennea' does not.

Stem length: Medium.

Stem color: Green.

Leaf: Size: Length: Medium to long.

Width: Broad to very broad.

Base shape: Closed.

Top surface: Main color: Medium green; no variegation.

Zone: Weak to very weak conspicuousness; reddish brown.

Undulation of margin: Weak to medium.

Quantity of open flowers: Small to medium.

Diameter of largest flower: Medium to large.

Pedicel: Green color; no swelling present.

Bud shape: Narrow elliptic.

Flower type: Double.

Time of beginning of flowering: Early.

Petals: Many; entire margin; medium width.

Color: Upper petals: Margin: Purple-red (66B).

Middle: Purple-red (66B).

Underside: Purple-red (66B).

Markings: Medium stripes; no white zone at base.

Lower petals: Margin: Purple (74B).

Middle: Purple (74B).

Underside: Blue-pink (67B).

Markings: Absent.

Inner petals: Middle color Purple (74B); no markings.

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VARIETY OF GERANIUM PLANT NAMED 'PENNEA

VARIETAL DENOMINATION

'Pennea'

CLASSIFICATION

Pelargonium peltatum (ivy geranium)

BACKGROUND OF THE INVENTION

The present invention comprises a new and distinct cultivar of *Pelargonium peltatum* known by the varietal name 'Pennea'. The new variety was discovered in 1996 in a selective breeding program in Dresden, Germany. The new variety is a result of a combination breeding and embryo rescue in a group of 6 proprietary seedlings. None of the parent seedlings are patented or the subject of the application. The new variety was first asexually reproduced in 1997 by vegetative propagation by cuttings in Dresden, Germany. The new variety has been trial and field tested and has been found to retain its distinctive characteristics and remain true to type through successive propagations.

DESCRIPTION OF THE DRAWING

The accompanying photographic drawing illustrates the new variety, with the color being as nearly true as is possible with color illustrations of this type.

DESCRIPTION OF THE PLANT

The following detailed description sets forth the characteristics of the new cultivar at an age of 9 months, grown in a basket having a 23 cm diameter. The new cultivar is different from its parents in having the rosette-type flowers, the leaves are not odema susceptible and the flowers are shinier. The data which defines these characteristics were collected by asexual reproductions by cuttings carried out in Dresden, Germany. The color readings were taken outdoors in shadow during summer. Color references are primarily to the R.H.S. Colour Chart of The Royal Horticultural Society of London.

PLANT

[Classification:

Botanical: *Pelargonium peltatum*.

Commercial: Ivy geranium.]

Form: Hanging.

Height from media surface to top of foliage: 25 cm.

Width: 40 cm.

Trailing length: 70-120 cm.
Strength: Does not require artificial support.
Response time: 4 weeks.
Leaves:
 Size: 8-10 cm long.
 Width: 8-10 cm.
 Shape: Ivy-shaped.
 Margin: Emarginated, or entire with lobes.
 Texture: Hairy.
 Color: Upper surface is Green Group 137A with zone of
 Greyed-Orange Group 177A.
 Lower surface is Green Group 137D.
 Rib color: Green Group 138B.
 Vein color: Green Group 138B.

Petioles:
 Color: Green Group 138A.
 Diameter: 0.2 cm.
 Length: 3-4 cm.

Stem/branches:
 Color: Green Group 137B.
 Internode length: 4-6 cm.

THE BUD

Shape when just showing color:
 Overall: Semi-spherical.
 Individual bud: Elliptical.
Color: Green Group 139B.
Size when just showing color:
 Umbel: [7-9] 4 cm across.
 Individual bud: 1.0-1.5 cm long; 1.0 cm wide.

INFLORESCENCE

Blooming habit: Double.
Size of fully open bloom: 5-6 cm across.

Borne: Umbel; umbel on pedicel; pedicel on peduncle.

Umbel:

Diameter: [4] 7-9 cm.

Depth: [2] 5 cm.

Inflorescence: 150-200 per plant per season.

Flowers:

Form: Zygomorph.

Number of petals: 24.

Size: 1-2.5 cm across.

Petals:

Apex: Round.

Base: Pointed.

Margin: Smooth.

Color:

Upper surface: Red-Purple Group 66B.

Lower surface: Red-Purple Group 74B.

Texture and appearance: Velvety.

Petaloids: Absent.

Sepals:

Quantity: 6-9.

Length: 1.0 cm.

Width: 0.3 mm.

Apex: Pointed.

Base: Wide.

Margin: Smooth.

Color: Green Group 137B.

Pedicel:

Length: 2.0-2.5 cm.

Color: Green Group 138A.

Peduncle:

Length: 9.0-11.0 cm.

Color: Green Group 138A.

Disease/pest resistance: No susceptibility to diseases or pests has been noted to date.

Lasting Quality: Long-lasting; 2 weeks per umbel.

REPRODUCTIVE ORGANS

Stamens:

Anthers: 3 mm long.

Filaments:

Length: 0.5 cm maximum.

Color: Bright pink.

Pollen: Yellow.

Pistils:

Number: One with five parts.

Length: 0.3-0.4 cm.

Stigma: Pink in color.

Style: 0.8 cm long.

Ovaries:

Color: Greenish.

Length: 0.4 cm.

Fruit: Not present.

GENERAL CHARACTERISTICS

1. Very intense and shiny purple flower color.
2. Early flowering.
3. Vigorous growth habit.
4. Suitable for hanging baskets.
5. Flowering season is spring until frost.